

### **Remarks/Arguments**

Claims 12, 31, 45-69, 77-87, 89-96 and 100-104 are pending. Claims 1-11, 13-30, 32-44, 70-76, 88, 97-99 and 105 have been cancelled without prejudice. Applicants reserve the right to pursue the subject matter of one or more of the cancelled claims in one or more related applications.

Claims 31, 77, 96 and 100 have been amended. The subject matter encompassed by the amended claims is disclosed by the instant specification. Accordingly, no new matter has been added.

### **Withdrawn Subject Matter**

The Examiner has stated that the claims have been examined as they relate only to SEQ ID NOs:1463 (antisense nucleic acid complementary to the yphC gene), 12600 (yphC polypeptide) and 4228 (yphC nucleic acid encoding the yphC polypeptide). Applicants would like to clarify that SEQ ID NO:12600 is actually encoded by SEQ ID NO:8502 rather than SEQ ID NO:4228. SEQ ID NO:4288 encodes SEQ ID NO:5283. SEQ ID NO:5283 differs from SEQ ID NO:12600 in that the former is truncated by one amino acid as compared to the latter. Thus, SEQ ID NOs:5283 and 12600 differ by the addition of one C-terminal amino acid and SEQ ID NOs:4228 and 8501 differ by the addition of one coding codon and a termination codon. Because they are so close in sequence, Applicants believe the sequence searches conducted by the Examiner would necessarily include all of these sequences.

With respect to the various antisense nucleic acids recited in the claims, all are complementary to at least a portion of SEQ ID NO:4228 (structural feature) and serve to

decrease the expression of the polypeptide encoded by SEQ ID NO:4228 (functional feature). The Examiner contends that SEQ ID NOs: 1463, 1390, 1845, 2782, and 3283 should not be examined together since they each have different sequences. However, because they are each part of a larger molecule, searches would reveal many of the same results (e.g., each would yield the result of SEQ IDNO:4228 and variations therefrom). As such, Applicants contend that there would be not a burden of too many independent search results - rather there would be large redundancy in the results.

**Rejections Under 35 U.S.C. § 112**

Claims 31, 45-69, 77-84, 101, 103 and 104 have been rejected under 35 U.S.C. §112, second paragraph as being indefinite. Applicants respectfully disagree.

First, the Examiner contends that there is not a clear nexus between the purpose of the claim as stated and the last method step. Claim 31 has been amended to more particularly point out the invention. As such, Applicants believe that there is a clear nexus between the purpose of the claim as stated and the last method step.

Second, the Examiner contends that recitation of computer algorithms is improper because it represents an improper incorporation by reference of essential subject matter. Claim 31 uses a numbers of ways to describe the nucleic acid or protein sequences that are encompassed for use in the claimed methods. In two cases, a threshold of sequence identity is recited (i.e., at least 70% identical to a particular nucleotide sequence or at least 25% identical to a particular polypeptide) to describe the contemplated sequences. As such, there is written description provided for the claimed invention. Also in the claim, two different sequence

comparison computer programs are specified (i.e., BLASTN and FASTA) as a way of determining the percent identity required by the claim. By specifying particular programs, Applicants believe this provides a more exact description of the sequences used in the claimed methods. One skilled in the art could easily use these very well-known tools to determine if their nucleic acid or protein of interest meets the requisite sequence identity specified in the claim. Rather, than “essential material”, the computer programs are just the way in which one skilled in the art would determine if the use of a particular sequence is within the claim or not. In fact, the USPTO’s searchable database of issued patents reveal a number of issued claims that recite the same computer programs for the same purpose (see, e.g., 7,572,904 (claims 1 and 3); 7,582,808 (claim 1); 7,579,150 (claim 13); 7,422,847 (claim 7); 7,407,677 (claims 16 and 17)). Applicants believe that such a reference to such computer programs in the claims is proper for this purpose.

Third, the Examiner contends that the recitation of hybridization language in the claims is vague and indefinite. Claim 31 has been amended to include reference to hybridization conditions (see, e.g., ¶¶ 444 and 445 of US Publication 2002/0061569). As such, one skilled in the art would know how to determine if a particular sequence was encompassed in the methods of the claim.

Claim 96 has been rejected under 35 U.S.C. § 112, second paragraph as being indefinite. Applicants respectfully disagree.

The Examiner contends that there is insufficient antecedent basis for the term “growth inhibition”. Applicants point out that the claim has been amended thus obviating the rejection.

In view of the foregoing, Applicants respectfully request withdrawal of the rejections under §112.

**Conclusion**

It is believed that the claims now pending are in condition for allowance. Favorable action by the Examiner is earnestly requested.

**Authorization**

No fee is believed to be due. However, The Commissioner is hereby authorized to charge any fees which may be required for consideration of this Amendment to deposit account 13-2755.

Respectfully submitted,

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